

**REMARKS**

The Examiner's recognition of Applicants' invention by the indication of allowable subject matter for claims 9, 10 and 16 is gratefully acknowledged.

Claim 1 has been amended to include the features of claim 9, now cancelled. Claim 13 is amended to recite the elements of base claim 1, and to include the features of dependent claims 15 and 16, now cancelled. Claim 18 is amended to call out one or both ends of the shell.

Claims 22-31, withdrawn earlier, are cancelled, subject to Applicants' right to pursue the claims in a separate application.

*Objections to Claims*

In response to an objection, claim 18 has been amended to clarify that the elements may be disposed at one or both ends of the shell. In view of the amendment, it is requested that the objection be withdrawn.

*Claim Rejection under 35 USC § 103*

Claims 1-3, 5-7, 11-13, 15 and 18 were rejected under 35 U.S.C. § 103 as unpatentable over United States Patent No. 3,978,567, issued to Vroman in 1976, in view of United States Patent No. 5,980,837, issued to Umin et al. in 1999. Claim 17 is rejected under 35 U.S.C. § 103 as unpatentable over Vroman in view of United States Patent No.

4,350,664, issued to Gaysert in 1982.

Claim 1 is directed to Applicants' catalytic converter that includes a catalyst substrate having a ridge and a shell having a U-shaped attachment, and a first and second mat support materials spaced apart by a gap. The U-shaped attachment is opposite the ridge and within the gap between the mat support materials. As acknowledged in the Office Action, references do not show a U-shaped attachment opposite a ridge in the substrate and in a gap in the mat. Therefore, the references do not suggest Applicants' catalytic converter in claim 1, or in claims 2-3, 5-7, and 10-12 dependent thereon.

Claim 13 is directed to catalytic converter and is amended to recite the main elements of claim 1, upon which it was dependent, including a catalyst substrate having a ridge, a shell and first and second mat support materials. The claim is also amended to call out that the ridge is intermittent, and that the shell comprises intermittent depressions coinciding with the ridge. The references do not show an intermittent ridge and intermittent shell depressions, and so do not teach or suggest the aspect of Applicants' invention in claim 13, or dependent claims 17 and 18.

Accordingly, it is respectfully requested that the rejection of the claims based upon Vroman and the secondary references be reconsidered and withdrawn, and that the claims be allowed.

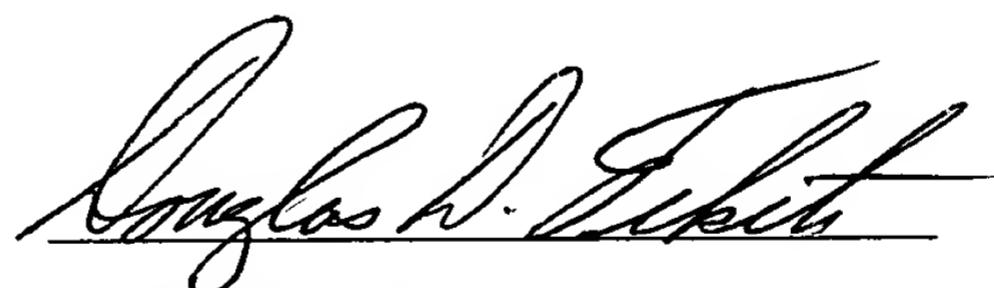
*Conclusion*

Claim 10 was objected to as dependent upon a rejected base claim. In view of the amendments and remarks herein, it is believed that the base claim is now allowable. Accordingly, it is requested that the objection be withdrawn.

It is believed, in view of the amendments and remarks herein, that all grounds of rejection of the claims have been addressed and overcome, and that all claims are in condition for allowance. If it would further prosecution of the application, the Examiner is urged to contact the undersigned at the phone number provided.

The Commissioner is hereby authorized to charge any fees associated with this communication to Deposit Account No. 50-0831.

Respectfully submitted,



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